

Appl. No. 09/480,986
Amdt. dated April 25, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2629

PATENT

Amendments to the Drawings:

The attached sheets of drawings includes changes to FIGS. 1A - 7. These sheets, which include FIGS. 1A - 7 replace the original sheets including FIGS. 1A - 7.

Attachment: Six Replacement Sheets

REMARKS/ARGUMENTS

Claims 1, 2, 5, 7, 9, 10, 12-13, 15, and 17-19 are pending. Claims 1, 2, 5, 7, 9, 10, 15, and 17 have been amended. Claims 12-13 and 18-19 are unchanged by this amendment. No new matter has been added by the claim amendments.

Claims 1, 2, 5, 7, 9, 10, 12, 13, 15, and 17-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over McKnight (U.S. Patent No. 6,144, 353) in view of Bonnett et al., (U.S. Patent No. 6,075,506).

In-Person Interview

The undersigned thanks the Examiner for the helpful in-person interview conducted on April 9, 2007. As suggested by the Examiner and discussed below, the independent claims have been amended to describe the voltages applied to both the pixel electrode and the common electrode of a pixel element.

Claim Rejections - 35 U.S.C. §103

Claim 1 has been amended to recite "each of the plurality of pixel elements having a pixel electrode and a common electrode," and "applying a single transition voltage to the pixel electrode and a pre-determined voltage to the common electrode of a pixel element during a first period of time" among other elements. Applicants respectfully submit that neither of the cited references, either considered alone or in combination, teach or suggest at least these claims elements in the manner claimed.

As discussed during the in-person interview, the claimed embodiment applies the single transition voltage to the pixel electrode while applying a pre-determined voltage to the common electrode. In contrast with the claimed embodiment, and as stated by the Examiner on page 3 of the pending Office Action, McKnight applies a voltage [Fig. 2C, 151] to electrode 108, which McKnight alternatively refers to as a "common electrode" (McKnight at col. 2, lines 17-22) or a cover glass electrode [Fig. 2A; 108]. The voltage applied to the common electrode causes the pixel intensity to drop as illustrated in FIGS. 2C and 2D of McKnight.

The claimed embodiment subsequently applies a first paint voltage to the pixel electrode to overwrite the single transition voltage. As stated on page 3 of the pending Office Action and illustrated in FIGS. 2C and 2D of McKnight, McKnight loads pixel data onto the pixel electrode [Fig. 2A, 104] during time t_0 to t_1 , while holding the cover glass electrode at a constant value.

Thus, McKnight discusses applying a first voltage to the common electrode [Fig. 2A, 108] and a paint voltage to the pixel electrode [Fig. 2A, 104]. McKnight does not teach or suggest applying both voltages to the pixel electrode as recited in claim 1. Moreover, Bonnett et al. does not make up for this deficiency in McKnight. For at least these reasons, claim 1 allowable over the cited references.

Claims 2, 5, and 7, which depend from claim 1, are in condition for allowance, for at least the reasons discussed in relation to claim 1, as well as for the additional elements they recite.

The other pending independent claims have been amended to recite elements similar to the elements recited in claim 1. For example, claim 9 has been amended to recite a "transaction circuit configured to apply a first transition voltage to the pixel electrode and a pre-determined voltage to the common electrode of a pixel element during a first time period within a first field time," and a "paint circuit configured to overwrite the first transition voltage and initiate application" "of a first paint voltage during a second time period within the first field time to the pixel electrode," among other elements. Claim 17 has been amended to recite an initializing circuit "configured to apply a first voltage to a pixel electrode of the pixel and a pre-determined voltage to the common electrode of the pixel during a first time period of a first field," and a driving circuit "configured to write display data to the pixel electrode" to "overwrite the first voltage," among other elements. As discussed in relation to claim 1, neither of the cited references, either considered alone or in combination, teach or suggest at least these claim elements in the manner claimed. For at least these reasons, claims 9 and 17 are in condition for allowance.

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Claims 10, 12-13, and 15 and claims 18-19, which depend from claims 9 and 17, respectively, are in condition for allowance, for at least the reasons discussed in relation to claims 9 and 17, as well as for the additional elements they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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